

# **SYSTEMS AND METHODS FOR AVOIDING BASE ADDRESS COLLISIONS USING ALTERNATE COMPONENTS**

## **Abstract of the Disclosure**

[0074] Processes are monitored as components are loaded into memory. Relocation of a component to an alternate base address instead of its preferred base address, causes an alternate component to be created corresponding to the relocated component. The alternate component is a copy of the relocated component, but the preferred base address of the alternate component is reset to be the alternate base address of the relocated component. Additional alternate components may be created for each relocated component, with each additional alternate component being optimized in a different manner. Alternate components may be implemented as alternate data stream of the corresponding relocated components. In response to subsequent requests to load a selected component into memory, it is determined whether the selected component has at least one corresponding alternate component. If so, one of the corresponding alternate components is loaded into memory instead of the selected component.

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